HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS)

4. Auto A/C Control Module I/O Signal

A: ELECTRICAL SPECIFICATION



Auto A/C Control Module I/O Signal

HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS)

Connector & Terminal No.	Content	Measuring condition		Specified value
B9		Switch the outlet opening to VENT \rightarrow DEF.		*2
B8	Mode door actuator	Switch the outlet opening to DEF \rightarrow VENT.		
B7	.	Switching the air mix door from COOL \rightarrow HOT		*1
B6	Air mix door actuator	Switching the air mix door from HOT \rightarrow COOL		
B5	Ignition power supply	Ignition switch: ON		Battery voltage
B4	Battery power supply	Ignition switch: OFF, ACC, ON		Battery voltage
B3	Sunload sensor	Ignition switch: ON, With Normal Sunload (No sunload: 5 V)		3 V
B2	Evaporator sensor	Ignition switch: ON		Less than 5 V
B1	Air mix door actuator PBR signal	Air mix door: COOL position		0.5 V
		Air mix door: HOT position		4.5 V
B20		Inlet opening: FRESH (Other positions: 12 V)		0 V
B19	Intake door actuator signal	Inlet opening: MIX (Other positions: 12 V)		0 V
B18		Inlet opening: RECIRC (Other positions: 12 V)		0 V
B17	A/C ON signal	A/C: ON (A/C OFF: 0 V)		8 — 10 V
B16	Blower motor control	*3		*3
B15	Blower fan ON signal	When blower fan is rotating (Not rotating: 12 V)		0 V
B13	Engine coolant temperature sen- sor	When the engine coolant temperature is 49°C (120°F).		8.9 V
B12	In-vehicle sensor	—		_
B11	Ground	Continuity to chassis ground		0 Ω
A7	Air mix door actuator PBR speci- fied voltage	Ignition switch: ON		5 V
A5	Mode door actuator position detection signal	Outlet	BI-LEVEL, DEF	5 V
		opening	VENT, HEAT, DEF/HEAT	0 V
A4	Mode door actuator position detection signal	Outlet opening	HEAT, DEF/HEAT, DEF	5 V
			VENT, BI-LEVEL	0 V
A1	Illumination power supply	Ignition switch: ON, Light switch: ON		Battery voltage
		Ignition switch: ON, Light switch: OFF		0 V
A16	Sensor ground circuit	Continuity to chassis ground		0 Ω
A14	Combination meter (Ambient temperature signal)	*3		*3
A13	Mode door actuator position detection signal	Outlet	VENT, BI-LEVEL, HEAT	5 V
		opening	DEF/HEAT, DEF	0 V
A12	Mode door actuator position detection signal	Outlet	VENT, DEF/HEAT	5 V
		opening	BI-LEVEL, HEAT, DEF	0 V
A10	A/C cut signal	A/C: ON		Battery voltage
		Pressure switch operated		0 V
A9	Illumination ground	Continuity to chassis ground		0 Ω

*1: Shows the battery voltage while the motor is running. When stopped, it will output 0 V, or the pulse signals of the battery voltage.

*2: Shows the battery voltage while the motor is running. When stopped, it shows 0 V.

*3: Unable to measure the voltage because it is a pulse signal.

B: WIRING DIAGRAM

<Ref. to WI-79, WIRING DIAGRAM, Air Conditioning System.>